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THE AGRICULTURAL SITUATION

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A Brief Summary of Economic Conditions

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SMALLER MEAT and poultry purchases by the military beginning July 1 are not expected to ease civilian shortages a great deal, but if these takings were not reduced civilian supplies would become much tighter. The prospective 87 million-head pig crop for 1945, a trifle above last year, indicates larger meat supplies—but not until next spring—because the spring crop was below last year while the fall crop is expected to be 12 percent larger. * * * With civilian consumption of food fats and oils in 1945 forecast at about 10 percent below 1944, civilians now face the most critical fats and oils shortage of the war, because of declining supplies and continued large war requirements. And the situation will not improve till well into 1946. * * * July 1 prospects point to the third largest total crop production in history, exceeded only by the bumper output of 1942 and 1944. A record wheat crop of 1.1 billion bushels and near-record oats crop of 1.4 billion bushels are in prospect, but only a 2.7 billion bushel corn crop, well below the last three years, is now indicated. Total fruit production is expected to nearly equal the record 1944 outturn, with record peach-citrus crops but an extremely short apple crop probable. * * * Farm employment at a record mid-summer low brought wage rates to a new high, approaching an average of \$100 a month without board.

Commodity Reviews

WHEAT

THE 1,129-million bushel wheat crop indicated on June 1 would be the largest in history, if realized, and considerably above last year's crop of 1,079 million bushels. Such a crop would be the third one of over a billion bushels, the first in 1915 being 1,008 million bushels.

The large prospective demand for wheat is expected to exceed this big output, thus reducing the July 1, 1946 carry-overs somewhat below the 300-325 million bushel level estimated for July 1, 1945.

Contrary to the usual seasonal decline during the harvest period, wheat prices at terminal markets this year are expected to fall only moderately below ceiling levels. This is because prices are being supported by large purchases for European relief and for exports, as well as by above average

domestic use for food, feed, and industrial alcohol. However, prices may decline more at local markets because of insufficient cars to move the large prospective crop. While the car shortage has eased considerably, the number of cars are not expected to be adequate to expedite movement at harvest time. But it must be remembered that bumper crops have created storage and transportation problems temporarily even in peacetime.

A suggested national goal of 67 to 70 million acres of wheat for harvest in 1946 has been submitted to the States for study, with the announcement of the final goal expected in July. The suggested goal compares with the 1945 goal of 67.7 million acres, the 68.6 million acres actually planted in the fall of 1944 and spring of 1945, and the 1937-41 average of 69.3 million acres.

LIVESTOCK

THE 52 million spring pig crop plus the prospects of 35 million head this fall, as indicated by farmers in their June 1 intentions, making a total of 87 million pigs for 1945, is a trifle above the 86¾ million saved in 1944 but 35 million head below the record crop of 1943.

While the spring crop is 7 percent below last year's it is 12 percent greater than the 1933-42 average. On June 1 farmers intended to breed 5½ million sows for farrowing this fall, 12 percent more than in the fall of 1944. If these intentions are carried out and an average number of pigs are saved per litter, the 1945 fall crop would be about 35 million head, a fifth more than the 1933-42 average.

About 25½ million head of hogs over 6 months old were on farms June 1, 26 percent below a year earlier, indicating a continuation of hog slaughter well under a year earlier.

Despite the smaller 1945 spring pig crop, total meat production this fall and winter will be about the same as a

Index Numbers of Prices Received and Paid by Farmers

[1910-14=100]

Year and month	Prices received	Prices paid, interest and taxes	Parity ratio ¹
1935-39 average....	107	128	84
1940.....	100	125	80
1941.....	124	132	94
1942.....	159	150	106
1943.....	192	162	119
1944.....	195	170	115
1944			
June.....	193	170	114
July.....	192	170	113
August.....	193	170	114
September.....	192	170	113
October.....	194	170	114
November.....	196	171	115
December.....	200	171	117
1945			
January.....	201	172	117
February.....	199	172	116
March.....	198	173	114
April.....	203	173	117
May.....	200	173	116
June.....	206	173	119

¹ Ratio of prices received by farmers to prices paid, interest and taxes.

year earlier because there will be heavier hogs to offset the smaller number slaughtered and cattle slaughter will continue large. But the larger fall pig crop means more pork next spring and summer, and total meat production will be up at that time if cattle slaughter continues at present levels.

DAIRY PRODUCTS

RECORD milk production is in prospect for 1945 if average or better than average weather prevails. Because of higher dairy production payment rates unit returns will continue at a record level. The dairy products feed-price relationship is expected to be very favorable for dairy enterprises, hence, production will probably be over 121 billion pounds. But if there is serious deterioration of pasture conditions, production may drop to 120 billion pounds.

With milk production at record levels the output of manufactured products, except butter, are at or near

a record high. Evaporated milk production thus far during 1945 has been at an annual rate of 39 hundred million pounds. Cheddar cheese is ahead of last year, and except for 1942 it has been running ahead of every year. Creamery butter production continues to lag behind last year but the rate of reduction has become narrower. Thus far, it appears that creamery butter production for the last half of 1945 may equal or exceed 1944 output.

POULTRY AND EGGS

THE 656 million chicks and young chickens on farms July 1 was 11 percent above last year. Based on past relationships, this would mean that the number of hens and pullets on farms January 1, 1946, will be slightly higher than on the first of this year. Hence, egg production during 1946 will be at least as large as this year. Prices received by farmers during the latter part of 1946 may not be as high as those in prospect for the last half of 1945, especially if there is improvement in the supplies

Prices of Farm Products

[Estimates of average prices received by farmers at local farm markets based on reports to the Bureau of Agricultural Economics. Average of reports covering the United States weighted according to relative importance of district and State]

	5-year average		June 15, 1944	May 15, 1945	June 15, 1945	Parity price June 15, 1945
	August 1909- July 1914	January 1935- Decem- ber 1939				
Wheat (bu.).....dollars..	0.884	0.837	1.43	1.49	1.50	1.53
Rice (bu.).....do.....	.813	.742	¹ 1.74	1.77	1.76	1.41
Corn (bu.).....do.....	.642	.691	1.15	1.08	1.11	1.11
Oats (bu.).....do.....	.399	.340	.788	.689	.674	.690
Hay (ton).....do.....	11.87	8.87	15.00	16.50	15.90	20.50
Cotton (lb.).....cents.....	12.4	10.34	20.16	20.51	20.90	21.45
Soybeans (bu.).....dollars..	2.96	.954	1.93	2.15	2.17	² 1.66
Peanuts (lb.).....cents.....	4.8	3.55	7.84	8.30	8.23	8.30
Potatoes (bu.).....dollars..	.697	7.17	¹ 1.26	1.77	1.80	1.25
Apples (bu.).....do.....	.96	.90	3.14	2.55	2.71	1.66
Oranges on tree, per box.....do.	⁴ 1.81	1.11	2.45	2.84	2.96	³ 2.03
Hogs (cwt.).....do.....	7.27	8.38	12.60	14.10	14.10	12.60
Beef cattle (cwt.).....do.....	5.42	6.56	¹ 11.70	12.90	12.90	9.38
Veal calves (cwt.).....do.....	6.75	7.80	¹ 13.10	13.90	13.80	11.70
Lambs (cwt.).....do.....	5.88	7.79	¹ 13.10	13.50	13.40	10.20
Butterfat (lb.) ⁵cents.....	26.3	29.1	50.2	50.2	50.2	⁶ 41.7
Milk, wholesale (cwt. lb.) ⁵dollars.	1.60	1.81	¹ 3.08	3.08	3.04	⁶ 2.47
Chickens (lb.).....cents.....	11.4	14.9	23.8	26.6	27.5	19.7
Eggs (doz.).....do.....	21.5	21.7	28.1	33.7	35.8	⁶ 32.0
Wool (lb.).....do.....	18.3	23.8	¹ 42.6	41.0	41.7	31.7

¹ Revised.

² Comparable base price, August 1900-July 1914.

³ Comparable price computed under sec. 3 (b) Price Control Act.

⁴ Comparable base price, August 1919-July 1929.

⁵ Does not include dairy production payments made directly to farmers by county AAA offices.

⁶ Adjusted for seasonality.

of red meat and some decreases in consumer purchasing power.

Demand for chickens and turkeys for the remainder of 1945 will be strong and prices received by farmers will average higher than in 1944. Turkey production will probably be at a record level, at least 10 percent above the 547 million pounds (dressed weight) produced in 1944. Commercial broiler output will be materially above 1944 but the decreases in slaughter of farm chickens will probably offset this so that total chicken meat output may be slightly smaller in 1945 than in 1944.

Although the 441 million dozen eggs produced in June were 3 percent below last year, the rate of lay per average layer for the first 6 months of 1945 has been at a record high, 89.0 eggs against 86.7 eggs in 1944. This high rate of lay is the result of many factors among which are the improvement in types of layers under the National Poultry Improvement Plan, better feed, and improved management practices. And this year the weather may have had some effect.

VEGETABLES

UNSEASONABLY cold, wet weather in May and early June retarded development of crops in most areas, and an extended period of dry weather reduced crop prospects in the extreme southeastern United States, particularly in Florida. Nevertheless, the aggregate supply of commercially produced truck crops for the fresh market during the summer is expected to be about 4 percent higher than in 1944.

Compared with last year, commercial supplies for this summer are expected to be most abundant for cabbage, cantaloups, honeydew melons and spinach, but considerably smaller for snap beans, cucumbers, eggplant, onions and tomatoes.

If intentions early this season are carried out, it is expected that production of 11 important truck crops for processing will be available this year

from an aggregate acreage about 5 percent larger than the acreage planted for this purpose last year, the record high up to that time.

A record-breaking crop of commercial early Irish potatoes is in prospect for this year. These early commercial potatoes furnish the bulk of fresh market supplies during the summer and early fall, and usually constitute about 14 percent of total annual production of all potatoes.

FRUIT

TOTAL 1945 production of deciduous fruits, excluding apples, is now expected to be as large as the above-average output of 1944. Commercial apple production may be smaller than the short crop in 1943—very short in the East but nearly average in the West. Growing conditions continue favorable for the new 1945-46 crop of citrus fruit, except in Florida, where rainfall was short last winter and spring.

Among the deciduous fruits with summer harvest peaks, the indicated production this year compared with last is substantially larger for California prunes for drying, slightly larger for sweet cherries and peaches, about the same for pears, considerably smaller for California fresh plums, and substantially smaller for sour cherries and apricots. The California grape crop—table, wine, and raisin varieties—may be about as large as the above-average crop in 1944. Despite the prospects for a large national production of most deciduous fruits, the production in parts of the Northeast and Midwest will be short because of unfavorable spring weather.

The 1945 commercial packs of most canned fruits and fruit juices are expected to be about as large as in 1944, but the dried and frozen fruit packs may be slightly smaller. This year's prospective canned packs of apricots and sour cherries will be substantially smaller than last year because of smaller crops of these two fruits.

Economic Trends Affecting Agriculture

Year and month	Industrial production (1935-39 = 100) ¹	Income of industrial workers (1935-39 = 100) ²	1910-14=100				Index of prices received by farmers (August 1909-July 1914=100)			
			Wholesale prices of all commodities ³	Prices paid by farmers		Farm wage rates	Livestock and products			
				Commodities	Commodities interest and taxes		Dairy products	Poultry and eggs	Meat animals	All livestock
1910-14 average.....	58	50	100	100	100	100	100	101	101	101
1915-19 average.....	72	90	106	151	150	148	148	154	163	158
1920-24 average.....	75	122	160	161	173	178	159	163	123	142
1925-29 average.....	98	129	143	155	168	179	160	155	148	154
1930-34 average.....	74	78	107	122	135	115	105	94	85	93
1935-39 average.....	100	100	118	125	128	118	119	109	119	117
1940-44 average.....	192	234	139	150	148	212	162	146	171	164
1941.....	162	169	127	131	132	154	139	121	146	140
1942.....	199	241	144	152	150	201	162	151	188	173
1943.....	239	318	151	167	162	264	193	190	209	200
1944.....	235	325	152	176	170	315	198	174	200	194
1944-June.....	235	327	152	176	170	-----	192	154	200	189
July.....	231	320	152	176	170	328	194	165	197	190
August.....	232	324	152	176	170	-----	196	171	201	194
September.....	231	320	152	176	170	-----	198	179	200	196
October.....	232	320	152	176	170	325	201	190	201	199
November.....	232	318	152	177	171	-----	203	207	200	202
December.....	232	322	153	178	171	-----	203	211	198	202
1945-January.....	234	322	153	179	172	324	202	199	203	202
February.....	236	4 320	154	179	172	-----	200	183	209	201
March.....	235	4 318	154	180	173	-----	198	175	211	200
April.....	231	310	154	180	173	335	194	176	215	201
May.....	227	-----	155	180	173	-----	192	179	217	202
June.....	-----	-----	-----	180	173	340	191	189	216	203

Year and month	Index of prices received by farmers (August 1909-July 1914=100)								Parity ratio
	Crops							All crops and live-stock	
	Food grains	Feed grains and hay	Tobacco	Cotton	Oil bearing crops	Fruit	Truck crops		
1910-14 average.....	100	101	102	96	98	99	-----	99	100
1915-19 average.....	193	164	187	168	187	125	-----	168	162
1920-24 average.....	147	126	192	189	149	148	6 143	160	151
1925-29 average.....	140	119	172	145	129	141	140	143	149
1930-34 average.....	70	76	119	74	72	94	106	86	90
1935-39 average.....	94	95	175	83	106	83	102	97	107
1940-44 average.....	123	119	245	131	159	133	172	143	154
1941.....	97	89	159	107	130	85	129	106	124
1942.....	129	111	252	149	172	114	163	142	159
1943.....	148	147	325	160	190	179	245	183	192
1944.....	165	166	354	164	209	215	212	194	195
1944-June.....	165	170	350	163	210	228	231	197	193
July.....	161	168	350	164	209	230	195	194	192
August.....	156	166	355	162	209	214	186	191	193
September.....	155	162	358	170	207	206	166	188	192
October.....	164	161	357	171	211	205	153	187	194
November.....	165	157	368	168	215	195	188	189	196
December.....	167	160	364	168	215	206	228	196	200
1945-January.....	169	163	365	163	214	205	262	200	201
February.....	169	164	360	161	215	211	223	197	199
March.....	171	166	359	163	215	211	203	196	198
April.....	172	162	362	163	215	221	259	204	203
May.....	172	161	363	165	216	227	193	198	200
June.....	173	162	364	169	217	237	269	210	206

¹ Federal Reserve Board, adjusted for seasonal variation, revised November 1943.

² Total income, adjusted for seasonal variation, revised February 1945.

³ Bureau of Labor Statistics.

⁴ Revised.

⁵ Ratio of prices received by farmers to prices paid, interest, and taxes. ⁶ 1924 only.

NOTE.—The index numbers of industrial production and of industrial workers' income, shown above, are not comparable in several respects. The production index includes only mining and manufacturing; the income index also includes transportation. The production index is intended to measure volume, whereas the income index is affected by wage rates as well as by time worked. There is usually a time lag between changes in volume of production and workers' income since output can be increased or decreased to some extent without much change in the number of workers.

Fats and Oils Shortage is Critical

CIVILIANS are facing the most critical fats and oils shortage of the war. Consumption of food fats as a whole in 1945 will be about 10 percent less than in 1944, and about 15 percent below prewar levels. The most severe shortage is in butter. Per capita consumption of butter in 1945 will be slightly over 10 pounds compared with an average of 16.7 pounds in 1935-39. A reduction of about 300 million pounds in civilian consumption of lard from the 1944 level is in prospect this year. The supply of edible oils available for making shortening, margarine, and other edible products for civilians likewise is short this year.

Supplies of industrial fat-and-oil products, such as soap, paint, linoleum, also are reduced sharply. Output of civilian soap this year will be about 15 percent below 1944, with a notable reduction in chips and flakes. Civilian consumption of paint oils in 1945 will be about 25 percent less than in 1944. In the case of paint oils, however, civilian demand has declined during the war period, reflecting a shortage of pigments and other materials used in paint, a scarcity of skilled painters, and a drastic curtailment of residential building construction.

Requirements Up

How have these shortages come about? In 1939 the United States imported nearly 2 billion pounds of fats and oils. Since Pearl Harbor, imports have been cut in half, to about a billion pounds a year, but domestic production increased from 8.2 billion pounds in 1939 to 10.8 billion pounds in 1944 when supplies balanced needs fairly well. This year domestic production will be down to about 9.6 billion pounds, with a possibility of a decrease in the billion-pound level of imports of the last 3 years.

Against these diminishing supplies

have been ever increasing military and other war requirements. The prospects of a billion-pound reduction in over-all supplies for 1945, with war requirements continuing large, simply means that civilian supplies will be extremely tight well into 1946. In fact, military requirements for 1945 are considerably larger than in 1944, and lend-lease shipments and exports to liberated areas, while below last year, will still be well above the prewar level of exports.

Production Down

The billion-pound reduction for 1945 is mainly the result of 30-percent decreases in lard and linseed oil production, a 4-percent decrease in butter production and a reduced output of greases. The decrease in lard and greases arises from the same factors which have caused a reduction in pork, namely an oversupply of hogs in the winter 1943-44 followed by a sharp reduction in the pig crop in 1944. Butter production is down this year despite the fact that total milk output will be the highest on record. Whole milk products have been in increasing demand during the war years, both for domestic consumption and to meet military and export requirements.

Output of linseed oil is down sharply following a 50-percent reduction in the flaxseed crop in 1944. The large acreages planted to flaxseed in the main flaxseed belt in the past 3 or 4 years has resulted in increased weediness in the fields, a condition harmful to flaxseed. Also, in the spring of 1944, wheat and other small grains offered a slightly more favorable price inducement to farmers in the flaxseed area than flaxseed. In 1945, a special payment of \$5 will be made to farmers for each acre of flaxseed planted as an aid in meeting individual farm goals. This is expected to result in a substantial increase in flaxseed acreage and production this year, but part of the

flaxseed grown in 1945 will not be crushed for oil till 1946.

No improvement in imports is expected this year. Imports in 1945 may be the smallest for any of the war years. Normally a substantial quantity of Argentine flaxseed is imported. This year very little Argentine flaxseed will be available to the United States, because drought cut the crop just harvested in half, and because a large part of the crop is being used in Argentina for fuel. Lack of ocean shipping during the war resulted in a surplus of flaxseed and a shortage of fuel in Argentina which combination of circumstances resulted in a policy of burning linseed oil and linseed cake for fuel. A large part of the crop harvested in 1944-45 already has been burned, and little flaxseed will be available for export until the new crop is harvested early in 1946.

Imports Way Below Prewar

In comparison with prewar years, imports of copra, coconut oil, palm oil, and tung oil, are far below normal. Some copra is now being obtained in the South Pacific Islands and in Ceylon. No copra has been obtained as yet in the Philippines, and little is in prospect this year. Palm oil is being obtained in relatively small quantity from West Africa. The prewar source of supply was the Netherlands East Indies, still held by the Japanese. Tung oil came almost exclusively from China, but China is still largely inaccessible as a source of imports. Although the olive oil exporting countries in the Mediterranean have been liberated, a general shortage of oils and fats in that area precludes the shipment of any substantial quantity of olive oil to this country in 1945.

One factor affecting the supply of fats and oils available for import by the United States this year is the renewal of demand for imports by continental Europe. Before the war continental Europe, excluding Russia, imported approximately 4.5 billion pounds of oils and fats annually. In 1945 there is a minimum need for

about 2 billion pounds of imports to the Continent, but it is doubtful that sufficient surplus supplies exist in the world to meet even this minimum.

World exports of fats and oils before the war amounted to about 10 billion pounds annually, of which roughly a third originated in the Far Eastern areas, still largely cut off from European and Western Hemisphere markets. Another tenth of the world exports before the war was obtained from whaling expeditions in the Antarctic Ocean. Whaling activity this year is on a very limited scale. Even if whaling ships are equipped for the Antarctic, it will be the spring of 1946 before any substantial quantity of whale oil will reach Northern Hemisphere markets.

Prospects for 1946 and After

Supplies of fats and oils will continue short until the summer of 1946 at least. Production of lard in the United States may increase somewhat next spring and summer, reflecting a larger pig crop in the fall of 1945 than a year earlier. Exports of Philippine copra may reach a fair volume by that time though the copra industry there faces many difficulties. Copra producers are in need of consumer goods to be purchased with the money received for copra. In addition, there is a shortage of inter-island shipping for transporting copra to ocean-shipping points, road communications are poor, and there is a shortage of sacks for handling the copra. Perhaps the greatest difficulty is the lack of ships for transporting copra from the Philippines. Some progress is being made in overcoming these difficulties, but it will be several months at least before any sizable quantity of copra is shipped. It is doubtful if exports of copra from the Philippines will reach prewar levels for 3 or 4 years. Neglect of copra groves during Japanese occupation resulted in lower yields, necessitating rather intensive efforts to rehabilitate the trees. Similar difficulties may be expected in the coconut and palm tree areas of

the Netherlands East Indies and Malaya.

The linseed oil situation may improve in 1946 if production of flaxseed in Argentina returns to the normal level of 60 to 80 million bushels. If the burning of flaxseed products for fuel is stopped, the exportable surplus of Argentine flaxseed in 1946 might be as much as 40 or 50 million bushels. Usually the United States imports around half of its annual crush of flaxseed, which in times of high industrial activity approaches 40 million bushels a year.

European demand for imports of fats and oils, as well as other foods, will be urgent at least until the harvest of new crops beginning in the summer of 1946. This demand for fats and oils will continue relatively strong for several years, reflecting a reduced pro-

duction of animal fats during the war years.

Demand for fats and oils in the United States may be somewhat less in 1946 than it is this year. With some reduction in military personnel likely in 1946, there may be a sizable reduction in procurement of fats and oils by the armed forces. Consumer demand may be weaker, reflecting lower national income. However, as civilian supplies of fats and oils already are far below demand, a weakening of the over-all demand will not depress prices materially. Supplies of fat-and-oil products for civilians in most of 1946 may still not be large enough to meet demand in full, even at the relatively high prices of the war years.

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What Wheat Policies After the War?

THE position of wheat and the welfare of the wheat farmer in postwar years are of increasing concern. An understanding of changes that have taken place in acreage, yield, production, and utilization of wheat as well as in farm size and mechanization is necessary for adequate appraisal of the postwar demand and supply prospects and for intelligent selection of alternative wheat policies.

Acreage and Yield Changes

The wheat acreage planted in the Great Plains States¹ has increased from about 60 percent of the national total in the early 1920's to about 70 percent since 1930. In contrast, the more humid areas east of the Plains has seen a longtime downward trend in wheat acreage. Few alternatives to wheat production exist in the specialized wheat areas and consequently acreage changes only slightly when

wheat prices drop. In the higher-risk portions of the Great Plains about the only alternative to wheat production is a shift to a livestock-grazing economy, a radical and difficult shift which can be made only over a period of years and which means fewer operators.

The largest wheat acreage in United States history—81 million acres—was planted in 1937. The adjustment program introduced in 1938 with its new features of conservation, marketing quotas, loans, and crop insurance was more effective than the earlier one of 1933 in achieving acreage reduction. Beginning in 1939 wheat acreage declined, and in 1942 only 52.2 million acres were planted. But after restrictions were removed in 1943, acreage climbed to 65.7 million in 1944 and to over 68 million acres in 1945.

NOTE: This article is a summary of a more comprehensive report, *Wheat Production in War and Peace*, which was prepared by the authors together with Della E. Merrick and issued recently by BAE—Editor.

¹ North Dakota, South Dakota, Montana, Wyoming, Colorado, Nebraska, Kansas, New Mexico, Oklahoma, Texas.

Wheat yields have increased in all major wheat regions, primarily because of varietal improvements to combat drought, diseases, and insects; greater use of soil and moisture conserving practices such as summer-fallow; and mechanization by improving timeliness of operations. A definite upward trend in yields is apparent in the soft red winter and Pacific Northwest wheat regions, and even in the Great Plains after adjustments are made for major changes in precipitation and temperature. Planted acre yields for the United States averaged 12.3 bushels during 1919-23 compared with 16.4 bushels during 1941-44. Most of this 4-bushel increase seems attributable to such factors as improved varieties and better farming methods because weather conditions were generally the same in both periods.

Farm Size and Mechanization

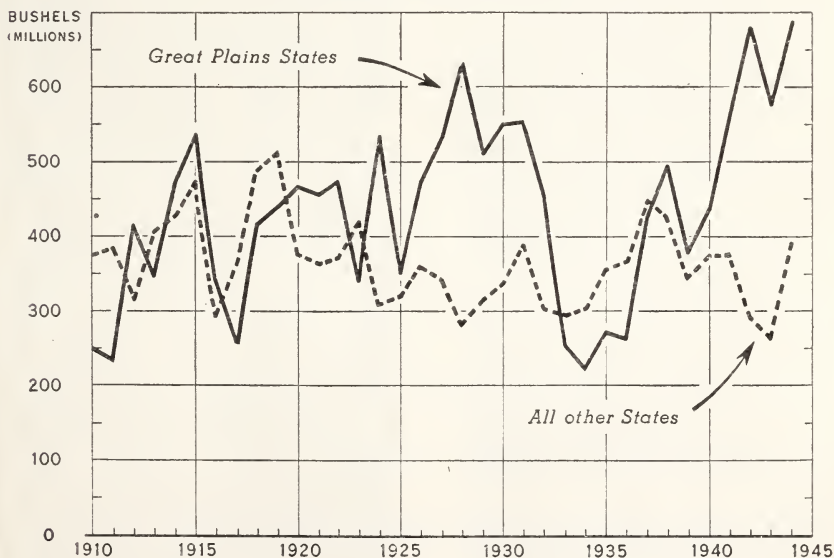
Farms in the wheat areas are now much larger than before World War I. Typical family-operated wheat farms in the heart of the hard winter wheat

region increased 88 percent in size, and 94 percent in acreage planted to wheat per farm between the two periods 1910-14 and 1938-42. The changes in this area represent the general trend of change in all of the major specialized wheat areas.

The tractor and combine have revolutionized wheat farming since 1910, making possible the increases in size of farm through reductions of over half in the amount of labor required per acre in the specialized wheat areas.

Primarily because of these changes in size, mechanization, reduced labor requirements, and increased wheat output per farm, the average return per farm is significantly greater now than in the 1910-14 period. Returns to operators of typical wheat farms in the hard winter wheat region were almost twice as much during 1938-42 as during 1910-14, after making appropriate adjustments for changes in costs of production and in price levels between the two periods. However, these typical wheat farms are larger than many and the degree of adjustment has been greater. Many farms

WHEAT PRODUCTION, GREAT PLAINS STATES AND ALL OTHER STATES, 1910-44



producing wheat have not adjusted so well to changing conditions and are too small and inefficiently operated to provide adequate incomes.

Production and Utilization

The volume of wheat produced in the United States tends to fluctuate considerably as a result of wide year-to-year variations in yield and acreage. Production has varied from 526 million bushels in 1934 to over 1 billion bushels in 1944, and has averaged about 800 million bushels annually from 1910 to 1944. Production in the Great Plains is much more variable than in the rest of the United States, and the spectacular changes in this region largely determine whether the national production is high or low, as production in all other States as a group is relatively stable. (See chart.)

Contrasted with the variability of production of wheat from year to year, consumption is relatively stable. Most of the small variation in domestic disappearance is in the quantity of wheat fed to livestock rather than in the quantity milled for human consumption. Although domestic consumption has increased over a period of years, the increase has been less than the increase in population.

From 1912 to 1928 exports were around 200 million bushels and were sufficient to clear the market of current supplies. Stocks at the end of the year seldom exceeded 140 million bushels. With the decline in exports beginning in 1927 stocks pyramided to high levels, were reduced following the drought years, but increased to over 600 million bushels in 1942 and 1943. Surplus stocks have been reduced as a result of two catastrophes—the drought of the middle 1930's and World War II. Large quantities of wheat have been used for livestock feed, exports, and alcohol manufacture in the last few years under subsidy programs.

The position of United States wheat growers in the world of tomorrow will depend upon many things but chiefly

upon the volume of market outlets for wheat and whether there will again be more wheat than can be disposed of by the usual market procedures at prices satisfactory to wheat growers.

Increasing the utilization of wheat depends mainly upon increasing exports and the amount used as livestock feed. Postwar utilization of wheat appears likely to range from a probable minimum of about 785 million bushels to a probable maximum of about 925 million. A low level of about 110 million bushels for livestock feed and 60 million bushels for export are assumed in the minimum utilization estimate.

Today the wheat production potential is larger than ever before. Improvements in yields per acre combined with lower production costs, resulting from increased yields, larger farms and greater mechanization, probably will mean greater output per farm and a larger total acreage planted than formerly—under the same price conditions.

Larger Yields in Future

With normal weather and expected improvement in yields, the yield per planted acre for the United States in the postwar period (about 1955) should average about 14.4 bushels, compared with an average of about 12.5 bushels per acre since 1919. The average planted acreage for the last 35 years is 66 million acres. Such an acreage in the postwar period would produce about 950 million bushels, or 3 percent above the estimate of probable maximum utilization of 925 million bushels. If, however, the postwar demand approximates the estimate of minimum utilization of 785 million bushels, a planted acreage of only 54 million acres would be necessary at the indicated average yields.

Because of lack of alternatives in the specialized wheat areas, wheat acreage does not respond readily to changes in demand. At the higher level of utili-

zation in the postwar period little difficulty with wheat surpluses would be expected. If, however, postwar utilization more nearly approaches the probable minimum, burdensome surpluses would accumulate.

Policy Alternatives

The concept of parity returns for farmers has been fairly well accepted as a part of agricultural policy. They can be achieved in several ways, but most of the discussion in recent years has been in terms of parity prices.

Maintenance of parity prices for wheat in the postwar period on the present basis of calculating parity with no production control probably would result in an acreage at least approaching if not greater than the peak of 81 million acres planted in 1937. Such an acreage would produce more than 1 billion bushels of wheat with normal weather. Obviously, surpluses would mount rapidly and would soon be unmanageable. Such a course can be eliminated as a practical wheat policy. What, then, are the alternatives?

One alternative is parity prices with rigid production control and marketing quotas. Under such a policy wheat utilization would approach the estimated minimum of 785 million bushels, or even less if exports were not subsidized. With parity prices for wheat its use as livestock feed would be relatively small. Production of 700 to 785 million bushels could be obtained on 48-52 million acres. Limitation of wheat acreages to the extent necessary would result in underutilization of resources on 10 million or more acres of land in the wheat areas. Even if substitution of feed crops were permitted on the acreage taken out of wheat, underutilization would exist in many areas where wheat is the only well-adapted crop. High prices of wheat to growers would be partially offset by higher unit costs of production because of a smaller volume of wheat per farm on a restricted acreage. There would be a smaller volume of business in food

processing, distributing, and transportation industries. Substantial administrative costs would be necessary for such a program.

A second alternative is to maintain parity or near parity prices of wheat for food uses, and permit a free market price of wheat for feed and exports. Average returns per bushel would be less than parity, depending upon the proportion of total production going into commercial feed and export outlets, and upon the level of prices for export wheat and feed grains. Such a program would obtain approximately full utilization of resources. There would be only indirect restrictions on acreage and therefore little effect upon the volume of wheat handled by wheat processing, distributing, and transportation industries. This two-price policy would involve substantial administrative expense also.

A third alternative is to pursue a policy aimed at unrestricted production and marketing, to permit prices to stabilize at levels that clear the market for all uses. This alternative is based upon the proposition that the best and most effective way to obtain adjustment of the use of production resources to effective demand for each product is through the free interplay of prices in the open market. Consumers would be supplied with wheat products at competitively determined levels; and wheat processing, distributing, and transportation industries would have the volume of business and employment coming from unrestricted production.

The repercussion of such a policy in the wheat areas would be minimized if the transition were made over a period of years with gradual declines in prices and relatively prosperous general economic conditions to provide alternative opportunities either on farms or in industries. If the transition from supported domestic prices to world market prices were made rapidly even over a period of 2 or 3 years, severe hardships would develop on many wheat farms.

Various combinations of the above three major production and price policy alternatives for wheat are possible. Under each of the policies a number of different programs might be adopted that would be helpful to wheat farmers in making desirable adjustments and stabilizing resources and production, such as soil-conservation programs, crop-insurance programs, and credit programs.

Conversion Program Requirements

Assuming that national policy is aimed at a freely functioning market price for wheat in the postwar period, a well-considered conversion program could assist materially in bringing about adjustments and in alleviating stresses associated with the adoption of such a policy. Wheat farming has been carried on for a number of years with a cost-and-income structure, land values and taxes based upon higher than world-market prices. Although mechanization is almost complete in the specialized wheat-producing areas, high-cost methods of operation still persist on many farms where farm size is too small and machinery and other investment items are too high per unit of output to permit low-cost operation. The price of wheat necessary to keep such units in a solvent position, and to provide an adequate family income, is far above what is needed to return a good income on larger, more efficiently operated family farms. Adjustments in farm size and in reorganization of many units for increased efficiency would be one of the major goals in a conversion program designed to enable farmers to obtain adequate incomes under a free-market price system.

A comprehensive conversion program for the wheat areas would involve (1) more efficient operating units, (2) machinery and cropping systems adapted to the farm to spread overhead costs over more units of production, (3) adoption of conservation practices to provide long-time stability to farming in the area, (4) combining livestock and wheat production where

conditions permit, especially in the high-risk areas, (5) a crop insurance program with inclusive coverage.

Such a conversion program would need to be facilitated by special credit help, purchase of submarginal land, and employment service and training facilities for those who wished to find other work. A period of 5 to 10 years might be needed to make the transition. During this time a policy of gradual withdrawal of the wheat price support could be followed so that at the end of the period prices for wheat would be on a free-market basis.

Many farmers could make the transition without special help, but conversion payments and other assistance might be given those wanting to make desirable changes based on long-time farm plans.

When completed, such a program could result in full utilization of resources in specialized wheat areas. Most farms, if organized on an efficient family farm basis, could compete successfully and provide adequate incomes even in periods of only moderate prosperity. While there would be fewer wheat farms than today, those farmers who remained in wheat production would not need Government assistance to survive as wheat producers and would be free to produce whatever they wished.

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Bureau of Agricultural Economics



Part-time Farming. Earl H. Bell, and Orlin J. Scoville. U. S. Dept. Agr. Farmers' Bul. 1966, 18 pp. Printed. Washington. March 1945.

Written as a guide for those who are looking for part-time farms, especially for men returning from military service.

If You're Thinking of a Little Place in the Country. A. B. Genung. AIS 14. Printed. 12 pp. Bureau of Agricultural Economics. Printed. Washington, 1945.

Gives the reader a glimpse of how some part-time farming ventures have worked out.

Surplus Property for Farmers

FARMERS receive special recognition in the Surplus Property Act of 1944. Section 17 of the act says that the Surplus Property Board must "devise ways and means" for the sale of surplus property "in such quantities in rural localities and in such manner as will assure farmers and farmers' cooperative associations equal opportunity with others to purchase." The act also provides for the development of programs for the sale of surplus trucks, farm machinery and equipment to ease the difficulties in maintaining a high level of farm production.

The Surplus Property Board was created by the act to be the over-all agency to establish policies on the disposal of surplus property. The Board does not sell a thing—not a single spade or thimble. It designates "disposal agencies" to make actual sales. The disposal agency most concerned with the things a farmer uses is the Commerce Department, which handles surplus property through regional offices located at Atlanta, Boston, Chicago, Cincinnati, Denver, Fort Worth, Kansas City, New York City, San Francisco, Seattle, and Washington, D. C.

Many Small Items Now Ready

The Board has issued "Regulation No. 3" which sets the pattern for channeling surplus property into agricultural uses. This regulation says, in effect:

First, that the disposal agencies will channel appropriate quantities of surplus property into rural areas so that farmers and farmers' cooperative associations will be given equal opportunity to buy.

The War Food Administrator cooperates in setting up lists of surplus goods to be so channeled to farmers as ultimate consumers. The current list under Regulation 3 is: (1) Lumber, paint, wire and wire fence, pipe, netting, rope, posts, roofing, and siding; (2) forks, hoes, mattocks, axes, picks,

adzes, chain, post-hole diggers, rakes, scrapers, and shovels; (3) wrenches, pliers, vises, belt cutters, pipe stocks and dies, hammers, wrecking bars, saws, and chisels; (4) binder, tobacco and wool twine; (5) electric motors adaptable for farm use, electrical wiring and equipment; (6) harness and harness hardware.

It is important to note that, although these items are being set aside from available surpluses, and in proportionate amounts, for eventual use in rural areas, it is not contemplated in the regulation that they necessarily will be sold direct to individual farmers.

The Government hopes to get these surplus goods into the desired hands faster and more cheaply by selling to regular distributors, farmers' cooperatives, or retailers who certify that they will re-distribute the items in rural areas. The final buyer is protected by price ceilings. Most surplus consumer goods are now being disposed of this way.

However, there will also be sales of these and other surplus goods in rural areas by other means, if the Government finds such means desirable.

Larger Equipment Through AAA

Second, the rural disposal regulation provides that, if the War Food Administrator finds farm production impaired or likely to be impaired in a given area because of shortage of trucks, machinery, and equipment, he will certify to the Board what is needed and where—and the Board will order disposals accordingly in the amounts it deems feasible.

The surplus trucks, machinery, and equipment thus allocated will be sold to regular retail dealers and farmers' cooperative associations that agree to re-sell only to farmers or farmers' cooperative associations in the area specified. To buy a truck, these prospective purchasers must

have certificates issued by the Agricultural Adjustment Agency.

In addition, of course, a farmer may, if he chooses, purchase any available surplus property like the general public. And if the prospective purchaser is a veteran of this war, he may buy up to \$2,500 of surplus property to start his own farm or business, through special facilities provided by the Smaller War Plants Corporation, under a certificate issued by the Department in addition to any purchases he may desire to make on a regular basis.

While practically every normal civilian commodity may be expected to crop up in surplus eventually, it should always be remembered that surplus property was originally created for war purposes. Much is not directly adaptable to farming or other civilian uses. Nevertheless, thousands of surplus items are being put into productive use on farms every month. And a definite attack is being made on the problem of reconditioning or adapting other surplus equipment to agricultural and rural uses.

Ingenuity is making many types of war surplus useful in peace. For example, plans are under way to dispose of surplus Army field hospital units for use in counties requiring mobile public health services. And recently 50 weapon-carriers were sold in California for use as wagons or trucks. Adaptations of this kind promise to provide a major part of the practical uses to which surplus will be put.

A great proportion of all surplus equipment is in more or less "fair" condition. After all, much surplus is second-hand. A considerable part of surplus farm machinery, for example, has been found to need repairs.

What will be available at a given time cannot be known; in fact, it is not possible to know in advance the things that will be declared surplus by the Army, Navy, or other owning agencies. Thus surplus cannot be ordered in

advance as from a catalog. And surpluses appear in out-of-the-way places and in all amounts, although every effort is made to centralize the location of farm machinery available for sale.

These are some of the reasons why the disposal of surplus property is not a normal merchandising job. Accordingly, to effect the orderly and equitable disposal the Commerce Department sells surplus items of possible use to farmers through regularly established dealers in those commodities. These dealers, who include farm co-operative groups, are equipped to repair, service, and distribute surplus property. By selling through normal channels of trade the Government avoids the costly and complex organization that would be required to sell each surplus spade or wheelbarrow direct to final users.

Sales of farm equipment to dealers are now made through "spot sales." At these sales, which are held frequently at different places throughout the country, bids are made "on the spot" for items previously announced as being for sale. The highest bid is awarded immediately and payment is made in full. The dealer cannot re-sell above specified ceiling prices.

Surplus trucks are examples of surpluses in short supply that are allocated to dealers for re-sale in areas of greatest need. Four million bushels of milo maize were saved in southern Texas at harvest time recently with the help of surplus trucks.

Surplus property is a national asset, and the objective of present disposal procedures is to realize that asset to the fullest possible extent. Already millions of dollars worth of surplus have been disposed of for use in rural areas and for agricultural purposes. In this way surplus property, the relic and waste of war, contributes to war food production. This helps in the prosecution of the war—still the main objective.

SIERT RIEPMA
Surplus Property Board

Appraisal of Agricultural Goals Program

AT THE outbreak of the war agriculture was faced with the task of converting to a wartime basis to turn out the volume and kinds of food, fiber, and oils most needed. It was not sufficient to obtain just more production but production suited to special war needs. And to get the increased production of the farm products most needed, considerable shifting of enterprises had to be undertaken.

Because the usual demand and price relationships could not be relied on, it was necessary to establish some means of bringing about the production adjustments called for. Programs to effect these shifts without jeopardizing unnecessarily the long-time farming possibilities of individual farms were desirable. The establishment of agricultural goals and the development of programs to assist in their achievement constituted the basic approach.

The Goals Method

In its conception the goal method of approach was not greatly different from that followed in other phases of the war program. In industry goals were established for the production of airplanes and merchant ships. However, three points must be kept in mind in any comparison with the record of industrial production in an appraisal of the record of food production during the war.

In the first place, the appraisal must allow for the fact that weather influences production. So far during the war the weather has been favorable for crops. Secondly, food production must be proportionate to the production of all other war necessities, so the battle fronts will not be critically short of anything. Because food production draws partly on the same pool of resources that supplies the fighting men—the ships, the planes, the tanks, the guns—it is not feasible to set the food goals at such high levels that would be at the expense of other needs.

Thirdly, the production must be within the capacity of the agricultural plant, considering land capacity, equipment available, and labor supply.

The goal program attempted to provide the best possible balance between total requirements and the production capacity of agriculture. Commodity committees brought together basic information and developed suggested goals for the various commodities. These goals were studied to see whether they were in harmony with each other, whether excessive competition for land and labor in the same area would arise, whether goals for feed crops were correctly adjusted to the goals for livestock, and whether total acreage of all crops was in line with the acreage of land available. Finally the suggested goals were considered by farmers and State and local agricultural officials, and the final goals were established.

The final goals provided a measuring stick to gage requirements of the various factors of production and marketing in supplying the resources necessary to meet the production pattern established. Adjustments in programs were made after periodic analyses of the possibilities of goal attainment to help correct difficulties encountered by farmers in achieving the goals.

Aids to Goal Achievement

The major question on what the goals accomplished arise in the application of the methods employed in achieving the goals. In their achievement emphasis was placed on informing farmers of the kinds and quantity of agricultural products most needed in a given year to meet the demands of the war. Considerable reliance was placed on the use of price supports to bring forth the needed production. Farmers were instructed on ways to improve production methods. Conservation practices, which had stored up fertility on farms, were continued

in order to insure sustained output of needed crops. Assistance was given in obtaining needed labor and production supplies, including feed, fertilizer, machinery, and providing marketing facilities—transportation, storage, processing facilities, and containers.

Various other methods to assure goal achievement were utilized to a limited extent. Direct controls on agricultural production, which had been in effect before the war, were gradually relaxed and by 1944 the only controls were the marketing quotas on two types of tobacco. Special emphasis was placed on designated war crops. Incentive payments were used to get increased acreage of certain crops and to compensate farmers for their added costs in achieving the increased goal. The dairy subsidy payment plan to protect dairy farmers against increases in feed costs became effective in 1944. And an attempt to manage scarce production inputs was made in 1943 with the classification of commodities into "essential" and "nonessential."

The War Units Plan for occupational deferment for agricultural workers was put into effect in 1943. Regional Agricultural Credit Corporation loans were made available for the production of essential food and fiber for the war to insure producers against loss on high risk crops or crops they would not otherwise undertake to grow. Contracting between the Government and individual farmers was used in the production of hemp.

Emphasis Shifted During War

The first years of the war saw an attempt to convert feed supplies from the Ever-Normal Granary into food supplies for improved nutrition in the country and to meet the critical needs overseas. The need for direct food crops, particularly dry beans, dry peas, rice, and potatoes was emphasized. Increased production of oilcrops was greatly needed to offset reductions from the Far East. A large production of long-staple cotton and of hemp was requested because the

imports of these commodities were shut off, but changes in the import situation decreased the need for cotton and hemp a year later.

Stocks of wheat and cotton were large at the beginning of the war, and some agricultural manpower and other resources could usefully be diverted from these to other crops. But by 1944 the wheat goal was increased 12 million acres over the preceding year's acreage because wheat was badly needed for feed and in the alcohol program, and because large increases in requirements for military and relief feeding appeared likely.

The changing feed situation brought a major problem of balancing livestock output with reduced feed supplies in planning the 1944 goals program. It was not possible to increase feed supplies substantially and still maintain acreages of other vitally needed crops. Therefore, goals for livestock numbers in 1944 had to be reduced.

During the 5 years emphasis changed from one in which all-out production was desired, with goals considered as minimums, to one in which goals were on a more selective basis to meet changing demand conditions. By 1945 farmers were urged to come as close as possible to the production pattern established if shortages on the one hand and marketing difficulties on the other were to be avoided.

The Production Record

In each of the war years, farmers topped the previous year's production record, with 1944 output a third more than the average for the prewar years of 1935-39. The total production of crops for sale and home consumption in 1944 was 125 percent of this 5-year average and livestock production was 139 percent of the average.

The acreage of goal crops planted or grown increased from 348 million as an average in 1935-39 to 354 million in 1944. The crop pattern showed many shifts as well as increases from prewar years. In addition to a larger

total acreage, yields per acre increased as a result of favorable weather, better farming practices, and a wartime demand for maximum effort on the part of farmers. The increase in production thus exceeded the increase in acreage.

Oil Crops Increased Most

The greatest increase, both in acreage and production as a percentage of the prewar years 1935-39, was in the oil-bearing crops—soybeans, peanuts, and flaxseed—and reflected the wartime demand for these crops. The acreage of soybeans harvested for beans for the years 1942 through 1944 averaged 340 percent of the prewar years. Flaxseed acreage reached a high of 325 percent in 1943 and averaged over 240 percent of the prewar years. The acreage of peanuts picked and threshed increased over 100 percent.

Of the direct food crops, the dry pea acreage and production showed the greatest percentage increase. Acreage averaged nearly 250 percent of the 1935-39 average and production approximately 350 percent. The production of dry beans averaged 128 percent and rice 148 percent of the 1935-39 average. The acreage of wheat for the 3 years was approximately 80 percent of the 1935-39 average, while the production was 127 percent of this period.

Although the potato acreage was below the prewar average, except in 1943, production was above the average for each of the 3 years 1942-44, and in 1943, aided by record yields, exceeded the average by 31 percent. Difficulties developed in marketing this large production.

The acreage in vegetables for processing was increased one-third over the 1935-39 average in 1942 and was held at approximately this level in the next 2 years.

Very substantial increases were made in the acreage of cover crop seeds during the past 3 years. The increase amounted to 250 percent over

the prewar average while hay crop seeds increased nearly 50 percent.

The acreage of tobacco which had been held down to approximately 85 percent of the 1935-39 average was allowed to increase in 1944, when it was 5 percent over this average.

Acreage of hemp fiber was increased from a prewar base of less than 10,000 acres to 178,000 planted in 1943. Changing war conditions reduced the need so that in 1944 the acreage planted was approximately 70,000 acres, with further reductions in prospect for succeeding years.

Sugarcane acreage increased 6 percent, but sugar beet acreage for the 3 years averaged only 72 percent of the 1935-39 average despite a goal increase of 11 percent.

The acreage in cotton was held to 77 percent of the 1935-39 average, but better than average yields resulted in a production only 7 percent below average.

Goals for feed grains and forage crops did not involve large acreage increases because of the demand for direct food and oil crops. The acreage of corn, oats, and barley for the 3 years averaged only 2 percent above the acreage during 1935-39. Better than average yields resulted in a production of feed grains considerably above average.

Greater Livestock Output

Rapid increases in livestock production were made in response to the price stimulus and appeals to meet military and lend-lease requirement. Production of milk in 1941 was 11 percent over the 1935-39 average, eggs 15 percent, and hogs 23 percent. In 1942, production of poultry and eggs and of meat animals was approximately one-third over the 1935-39 average. Dairy production was 15 percent over this prewar average and was maintained at about this level for the next 2 years. Further large increases in production of meat animals and poultry were made in 1943. But in 1944 goals called for decreases in order to bring total live-

stock numbers in balance with feed resources.

Commercial broiler production made the most rapid increase during this period, being nearly 200 percent in 1942 and 260 percent in 1943 over the 1935-39 average. Goals for broiler production in 1944 were reduced to 80 percent of the 1943 production because of lower feed supplies. Production in 1944, however, was only 8 percent below 1943. Egg production increased each year, being 33 percent above the 5-year prewar average in 1942, 49 percent above in 1943, and 59 percent above in 1944.

Appraisal of Results

The record of production is one of which the Nation's farmers can be justly proud. Per capita food consumption in this country has been at high levels, higher than before the war. Likewise, the pattern of consumption insofar as kinds of food are concerned has not been drastically shifted. In addition large food supplies have been sent to other countries.

The food produced has not supplied every person with all the food of each kind desired nor did the production program attempt to reach these heights. To have done so would have wasted resources.

In the early part of goals work particularly there was some inconsistency in the application of the goals for different commodities. Some goals were established with the hope that they would be exceeded and others with the hope that they would not be exceeded. Likewise, there was a

tendency to make some goals essentially estimates of production which might be expected.

Probably the greatest criticism of the goals program during this period is the time lag in making the adjustments to meet rapidly changing conditions. Hesitancy in taking the necessary steps in time to bring about desirable production adjustments or failure to adopt drastic enough measures may have resulted in ultimate waste of resources and production below levels which might have been attained.

These criticisms are not intended so much to point out shortcomings of the goals program as they are to emphasize the fact that the goals approach in itself does not provide automatic controls. If the program stops after the goals are established, then there is little gained. The key to the goal approach is that the pattern established serves as a guide for taking the necessary actions to assure adjustments in production.

What of the future? Is the goals approach worth retaining for the immediate future and for the postwar adjustment years?

The answer as shown by the results achieved must be an affirmative one. Establishment of balanced production goals promptly backed by action programs consistent with the goals, at least for certain commodities, have many possibilities for preventing serious agricultural problems when peace comes.

PHILLIP F. AYLESWORTH
Agricultural Adjustment Agency

The Increasing Importance of the Peanut

THE PEANUT is probably the country's most unusual crop. None other grows like it and, except for the soybean, none other has increased as much in production. A hundred years ago the peanut was almost a novelty and at best only a side crop. Today, it provides the

principal source of income to many thousands of growers, with a value well above \$200,000,000 for each of the past 3 years.

Today, the peanut has the proverbial "thousand and one" uses, with virtually all of it utilized. In addition to being eaten roasted, or as peanut

butter or as candy, the peanut produces oil which has many uses. It is a superior cooking and salad oil—being especially preferred for cooking in submarines because under high temperatures it does not smoke as much as most cooking oils. It is also used in industry as a lubricant—one of the most interesting is as a film sprayed on airplane motors and other machinery shipped overseas to prevent rust. And peanut meal is widely used in livestock feed.

Although its history is obscure, most authorities agree that the peanut is indigenous to South America. It was probably grown for centuries there by the Indians before the discovery of America. Introduced in early days to Africa and the Orient, it has long been an important export product of India, China, and Africa. Before the present war, France and Germany together imported more than twice the quantity of peanuts produced annually in the United States.

The peanut is believed to have been brought to this country from Africa by the early traders in colonial times. Before the middle of the last century peanuts were grown primarily for home use in various sections of the South and were designated differently in many areas. "Goobers" was the name given to peanuts by the slaves, while "pinders" or "ground peas" were common terms also, which are still used occasionally where peanuts are grown.

Fruit Matures Underground

Peanuts require a fairly long summer—the reason why they cannot be grown too far north—and do best on fine sandy loam to sandy clay loam, but will grow on relatively poor, light soils if properly drained. The peanut is distinctive in the manner of producing its fruit. When the flowers have been fertilized, the stems turn downward and enter the ground. This is called "pegging" and at this season, consistent moisture is needed to condition the ground so that the pegs can

penetrate the crust. On these pegs the peanuts are formed underground.

First in Virginia as Cash Crop

The first area to develop peanuts as a cash crop was the southeastern corner of Virginia. Soon the neighboring counties in North Carolina were raising peanuts commercially and by 1909 the total acreage picked and threshed in the Virginia-Carolina area had grown to almost 350,000 acres, about 65 percent of all peanuts grown for edible purposes in this country. The acreage in this area remained near this level for a good many years, the 1933-42 average being 388,000 acres. But the heavy wartime demand for peanuts brought the 1943 and 1944 acreage to about a fifth above the level prevailing before the war.

With the coming of the boll weevil to southern Georgia and Alabama and northern Florida after the turn of the century, cotton growing suddenly was faced with insuperable hardships and in a great many cases its further production became unprofitable. Although peanuts had been grown in those sections mostly for hogs prior to that time, the severity of the damage caused by the boll weevil forced cotton farmers to diversify, and the extension of peanut production was a logical result. While there was expansion in the production of peanuts for hogging, the largest increase was in peanuts raised for picking and threshing. The acreage in the latter category, in Georgia and Alabama, increased from 100,000 acres in 1912 to 770,000 acres in 1932, and well over 1,500,000 acres were harvested in each of the last 3 years, nearly twice the 10-year average from 1933-42.

The Southwestern area—Texas, Oklahoma, Arkansas, Louisiana—is the third important peanut-producing region of the country. The acreage picked and threshed in this area went from 58,000 acres in 1912 to a high of 292,000 acres in 1917, which was not exceeded until 1938. Since then the

acreage has increased steadily, with the 1933-42 average over 400,000 acres. During the past 3 years, the acreage has averaged well over 1,100,000 acres.

High Priority War Crop

With imports of oils from the Orient cut off shortly after Pearl Harbor, peanuts, like soybeans and flax, became a high priority war crop because of direct military requirements as well as to meet the gap in civilian needs. This accounts for the phenomenal acreage increase in the three important producing areas during the last 3 years. The total United States acreage picked and threshed in 1942, 1943, and 1944 averaged over 3,300,000 acres, twice the 1,648,000-acre average for the decade (1932-41) previous to the war.

But production has not kept pace with the expanding acreage because yields have tended to decline as more land has been put into peanuts. The greatest acreage expansion has taken place in the Southwestern area where yields are normally low. A severe drought in the Southwestern area in 1943 brought a near failure to the peanut crop there and arrested the expansion of acreage. In spite of these handicaps, total United States production has exceeded 2 billion pounds in each of the last 3 years, compared with less than 1½ billion pounds for the 1937-41 average. The all-time record was set in 1942 with 2.2 billion pounds, followed by large crops in 1943 and 1944, averaging well over 2 billion pounds.

Wide Variety of Uses

Like the soybean, the peanut has had an ever increasing number of uses, especially in recent years. It is said that the circus gave impetus to the public acceptance of peanuts throughout the country toward the end of the last century. Before that time, most of the peanuts were used locally.

The first peanut butter made its appearance just before 1900, but its distribution was small for a number of

years. But peanut butter was found to be high in food value, having about three times as many calories per pound as beef steak, being high in protein and vitamin content, and being readily digestible. First sold as a health food it has gradually grown in public favor until today more than 40 percent of all shelled peanuts produced in the United States go into peanut butter, some of which is used in candy and bakery products.

Paralleling the increased use of peanut butter has been a growing demand for salted peanuts. Second only to peanut butter, they accounted for almost one-third of all shelled peanuts used in 1944.

Total disappearance of shelled edible peanuts for each of the past two seasons beginning on September 1 averaged about 800,000,000 pounds. The present season is exceeding both of the previous years. This compares with the average disappearance of 480,000,000 pounds for the two prewar seasons of 1939 and 1940.

About 1,000,000 acres of peanuts are "hogged off" each year. The tops of the peanuts dug and picked or threshed also provide livestock feed. Peanut cake, the residue left after the oil has been extracted, is a high protein feed concentrate which is usually ground into a meal and is used in producing mixed feeds.

Peanut hulls make a good fertilizer filler and conditioner. Greasy motors may be quickly and efficiently cleaned in a fraction of the time ordinarily required by using ground hulls blown in under pressure. And peanut oil is used more and more in industry though this use is still a small part of the total utilization.

Uses Channeled by War

Because of the tight situation on fats and oils supplies during the war, and because of the top war need for both peanuts and oil, farmers have been encouraged through price guarantees to expand production. This necessitated some central control in

order to have supplies available for the several uses.

The practice of requiring all shelled No. 2 grade peanuts to be crushed for oil was instituted with the 1944 crop and has served a useful purpose not only for obtaining the needed oil but the public is assured that food products are made from the No. 1 grade. If this practice of using only No. 1 grade peanuts for food products is continued, postwar prospects point to the need for a high level of peanut production. It requires about 15 percent more farmers' stock peanuts on the average to produce 100 pounds of shelled No. 1's than to produce the same quantity of No. 1's and No. 2's combined.

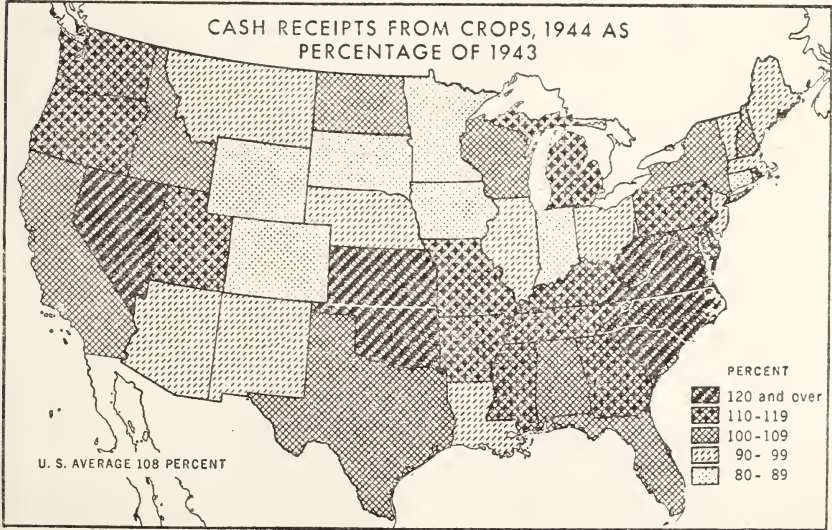
Any statistical comparisons among the products made from peanuts currently would hardly be valid from a long-term point of view because Government actions to meet military requirements have had considerable effect on the pattern of demand, or rather use, during the war. While consumption of shelled peanuts in recent years has exceeded all former records, it was not as great as it would have been if sufficient amounts of

peanuts had been available at all levels of distribution. The candy industry, for example, which has been plagued with shortages of sugar and cocoa, as well as peanuts, has not been able to use its normal proportion of peanuts. On the other hand, peanut butter is almost unknown in Europe and most countries of the world, though small lend-lease shipments may have whetted the appetite of many abroad. Its popularity here, however, indicates probable revolutionary developments for the industry in the years ahead if its uses become as well known in foreign countries.

Big Production for the Future

No one can predict future demands with any degree of scientific accuracy, but if the demand for shelled edible peanuts in the following 2 or 3 years should be about 10 percent lower than the average takings of the last 3 years, and if crushing of all No. 2 shelled goods should continue, consumption of shelled edibles would be about 720,000-000 pounds. To obtain that quantity of shelled No. 1's would require about 1,300,000,000 pounds of farmers' stock peanuts for shelling.

CASH RECEIPTS FROM CROPS, 1944 AS PERCENTAGE OF 1943



In addition, it would be necessary to make some allowance for cleaned peanuts for roasting, for farmers' stock peanuts for crushing, for usual requirements for seed, and for home use. This total would probably aggregate 500,000,000 pounds, which added to requirements for shelled peanuts, would indicate the need for crops of

1.8 billion pounds or more. Such crops would be larger than any crop before the record one of 1942 when 2.2 billion pounds were produced, and would be only a little under the 2.1 billion pounds produced in 1944.

JOHN F. MARSH
Bureau of Agricultural Economics

National Farm Safety Week

PRESIDENT Truman has proclaimed July 22-28 as National Farm Safety Week. In doing so he is continuing a practice inaugurated last year by the late President Roosevelt.

The observance of such a week, long urged by the National Safety Council and endorsed by many other organizations and institutions, including the Department of Agriculture, is calculated to reduce the heavy annual accident toll among farm people. Farming, by reason of the many types of machinery used and the different classes of animals handled, involves numerous possibilities of accidental injuries which all too often prove fatal or permanently disabling. And a far greater number of less serious injuries result in temporary disability. In addition to the accidents that occur in actual farm operations, home and road accidents also take a heavy toll among farm families.

17,000 Fatal Accidents a Year

According to estimates by the National Safety Council, fatal accidents occurring to farm people in the United States number more than 17,000 per year. This loss of life to farmers, their families, and hired help, plus the larger number of permanent disabilities incurred in nonfatal accidents for which no satisfactory estimates are available, plus the yet greater though unknown number of accidental temporary disabilities, constitute all told a burden on the farm population, in terms of sorrow, suffering, loss of productive work, and un-

expected financial outlays that can hardly be overemphasized.

Accidents occurring to farm workers while actually engaged in farming, according to the National Council, result in some 4,500 fatalities per year. The number of nonfatal accidents to this same class of workers which result in disabling injuries, either permanent or temporary, is estimated by the same authority at 225,000 per year. This accident toll to farm workers even when viewed coldly from an economic viewpoint, as a drain on agriculture manpower, is a serious and challenging problem. This is particularly the case under existing conditions when the labor supply on the farm is seriously depleted, while at the same time a record production is urgently needed.

Most accidents on the farm as elsewhere are the result of carelessness or the failure to take necessary precautions. The purpose of National Farm Safety Week is to bring home to all farm people, so far as possible, the importance to them and to the Nation of applying available preventive measures against accidents. During this week the causes of farm accidents and the means for removing or neutralizing these causes will be stressed in the farm press, and on the radio systems as well as by means of posters, mail stickers, and other available devices.

Causes Widely Known

The leading causes of farm accidents are widely known, but on the

Percentage Distribution of Fatal Farm-Work Accidents by Geographical Divisions and by Two Principal Classes of Causes, 1940-43

Geographic division	Fatalities by principal classes of causes		
	Ma- chinery	Live- stock	Other
	<i>Percent</i>	<i>Percent</i>	<i>Percent</i>
New England.....	40	18	42
Middle Atlantic.....	46	19	35
East North Central.....	52	17	31
West North Central.....	50	21	29
South Atlantic.....	38	23	39
East South Central.....	34	23	43
West South Central.....	47	23	30
Mountain.....	45	28	27
Pacific.....	50	18	32
United States.....	47	21	33

relative importance of these causes, except in the case of certain broad classifications, very inadequate information is available. Much additional and more specific information is needed for a thoroughgoing educational program in farm accident prevention.

The Bureau of Agricultural Economics recently arranged for some additional analysis of certain limited data on fatal farm-work accidents gathered by the Vital Statistics Division of the Bureau of the Census. These reports cover a total of 7,851 such fatalities that occurred during the 4-year period 1940-43, representing an average number per year of about 2,000. According to these reports, 47 percent of the fatalities resulted from accidents in connection with farm machinery and 21 percent of the total resulted from injuries in the handling of farm animals. By geographic divisions, machinery accidents were particularly predominant in the North Central and Pacific States and less relatively important in the East South Central and South Atlantic States. Fatal accidents occasioned by animals, on the other hand, ranked highest in the Mountain States followed by the South Atlantic and the South Central groups of States.

More Accidents Among Older

Further analysis of these vital statistics also indicates that for the United

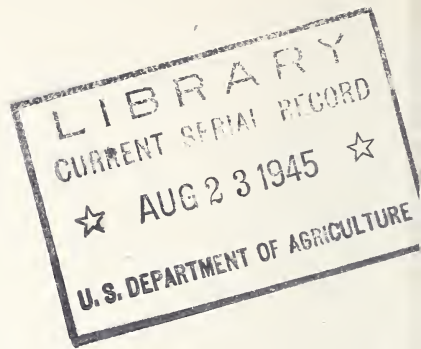
States as a whole more fatal work injuries to farm people occurred in the age group 60-69 than in any other 10-year group. The next in order was the age group 50-59. Five of the geographic divisions, namely, the New England, Middle Atlantic, East North Central, West North Central, and South Atlantic, had the greatest number of farm work fatalities in the age group 60-69, while the East South Central, West South Central, Mountain, and Pacific divisions had the greatest number in the age group 50-59.

In general the actual number of work fatalities increased with the advancing age groups, but unfortunately no information is available on the age distribution of farm workers for the years covered by the data. Hence the accident frequency per 1,000 for different age groups cannot be determined. Many younger men were serving in the armed forces or in war industries during part of this period and older men, aided to some extent by inexperienced boys and girls, were endeavoring to carry on the farm work. This has been even more generally true since 1943, and the presence of young and inexperienced farm workers many of them from the cities, has further emphasized the need for farm safety measures.

The present labor situation on our farms, coupled with the need for maximum production, gives to the coming National Farm Safety Week a special timeliness and importance. All agencies, public and private, should do everything possible to make it effective. Numerous causes of farm accidents can be completely removed by remedial measures. The danger from other causes can be greatly lessened by proper care and precaution. Awareness of danger and a desire and determination to play safe as far as circumstances permit can be promoted by a farm-safety campaign, and this is the purpose of National Farm Safety Week.

JOHN D. RUSH

Bureau of Agricultural Economics



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